

## PATENT SPECIFICATION

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Date of Application and filing Complete  
Specification: April 25, 1962.

No. 15697162

Application made in Italy (No. 7,691) on April 26, 1961.

Complete Specification Published: December 2, 1964.

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Index at Acceptance:—A4 DB4; H5 H2R2A.

International Classifications—A 47 j (H 05 b).

## COMPLETE SPECIFICATION

## DRAWINGS ATTACHED

## An Improved Coffee Percolator

I, CESARE ALBERTINI, an Italian citizen, of Via De'Rolandi 11, Milan, Italy, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:

The present invention concerns a coffee percolator.

Coffee percolators are known in which the body is provided with a spout for pouring out and generally a handle. Certain percolators are provided with a container having a perforated base for receiving an amount of ground coffee.

To produce coffee such a percolator is placed on a gas or electric stove or some other heating means. It has been ascertained that such a percolator does not completely satisfy all the requirements of the consumers because it cannot be used if they have no gas or electric stove. The majority of buildings do, however, now possess a supply of electricity and power points.

Known percolators also have the disadvantage that the user after having placed the percolator on the stove or fire may forget about it so that if this happens and all the water evaporates, the metal percolator is irreparably damaged.

The above outlined disadvantages also exist in percolators of the kind having an electrical heating element contained within the body of the percolator since when such a percolator is inadvertently used with insufficient water to cover the heating element there is the danger of melting of the solder of the heating element or other damage which would make the percolator at least temporarily useless.

In one known construction of coffee percolator embodying a single water container including an infuser member and a dis-

charge nozzle the container is furnished with a multiplicity of electrodes electrically connected respectively to contacts through which various electrical circuits in series or in parallel may be supplied from a source of supply of electric current, whereby when the electrodes are submerged in the liquid to be heated various degrees of intensity of electrical heating may be applied to said liquid, the electric current being automatically cut-off when the liquid in the container has been evaporated so uncovering the electrodes and leaving no path for passage of electric current. In this percolator the infused coffee is forced upwards by pressure of steam generated in the container and discharged through the beforementioned nozzle. Moreover this construction of coffee percolator is not mobile being of stable construction and provided with a cover or lid adapted to be clamped in position by means of a pivoted stirrup and a screw threaded spindle requiring forcible manual manipulation when access to the interior of the container is desired.

The present invention provides a portable coffee percolator which has none of the aforementioned disadvantages.

The present invention provides a portable coffee percolator including a lower part providing a water container forming an infusion chamber and furnished with an infuser element for receiving ground coffee and embodying a filter, and an upper part providing a container for receiving the infused coffee beverage, said container being formed with a centrally located percolator funnel, and also having a spout, a hinged lid and a handle, the two parts being removably attached together by a bayonet joint connection, the percolator being characterised in that the water container is furnished with a pair of electrodes connectable to a

[Price 4s. 6d.]

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sources of supply of electric current whereby with the container being filled with water and the electric current being switched on the electric current passes through the water which is, of course a conductor, from one electrode to the other so heating the water by electrolytic action, and as the depth of water falls and the electrodes become partially uncovered the intensity of current i.e. amperage flowing through the water diminishes until when the electrodes are fully uncovered no current flows between the electrodes.

The invention will be described, by way of example, with reference to the single drawing which shows a percolator in vertical section.

Referring now to the drawing, the coffee percolator comprises two main parts having substantially the shape of a jug and the reference 1 identifies the upper part of the two part body of the coffee percolator for receiving the infused coffee beverage and having a pouring spout 1a and being preferably made from electrical insulating material and being fitted with a hinged lid 1b and a handle 1c, and being formed internally with a centrally located percolator funnel 1d.

The lower part 2 of the two part body hereafter referred to as the water container 2, is provided with a bayonet fitting. At the mouth of this lower part 2 of the body there is arranged an aluminium container 3 arranged to receive ground coffee.

The water container 2 is closed at the top by the filter 4 of stainless steel, and in its lower part is provided with a basal floor 5. The lower part of the body 2 extends below the basal floor 5 in the form of an extension 12; providing housing for the electric terminals and for an electric conductor.

Within the lower part of the water container 2 are provided two heating electrodes 6 these being fixed to the basal floor 5 by means of screws 7 which pass through a watertight seal having a sealing washer 8. The said screws 7 project below the floor 5 into the extension 12 and each constitutes a terminal 9 for an electric conductor 10 whose other end is fixed to a prong 11 forming one element of a two hole plug.

The prongs 11 are fixed to a wall 13 which forms a localised recess 14 in the extension 12 of the lower part of the water container 2. The localised recess 14 serves to receive and partially enshroud a plug engaged with the prongs 11.

It will be appreciated that the terminals and electric connections are all located outside the part 2 of the body and below the basal floor 5 thereof. The terminals and electrical connections are protected by an electrical insulator 19 located below the said basal floor 5.

With the device described the ohmic resistance of the heating element 6 is used to heat the water in the percolator and it follows that as the amount of water in the percolator becomes less, and the heating element becomes more and more uncovered by the water the heating effect is reduced, until when the electrodes are fully uncovered no current flows between the electrodes.

The part 2 of the body is made from electrical insulating material and thus the risk of receiving an electric shock from the percolator is eliminated.

The percolator above described conforms to the requirements of the Commission electro-technic International and the Commission electro-technic European and is simple in construction and thus economical to manufacture.

The coffee percolator above described is found to be highly efficient in use. The parts 15, and 16, in the form of projections indicate the highest level and lowest level at which it is suitable to fill the water container of the percolator with water.

A safety valve 17 is provided in the upper part of the water container 2 and a cap 18 is provided for the filter. The cap 18 is so designed as to enable the capacity of the filter to be varied.

A brief description will now be given of the way in which the improved coffee percolator functions. The upper body 1 of the percolator is removed by turning it relatively to the lower body 2 to release the bayonet joint, the container 3 is removed from the body 2 and a supply of ground coffee is placed therein; the water container is filled with water to the required depth, e.g. somewhere intermediate of the high and low level indicating projections 15, 16 so covering the electrodes 6, the coffee container 3 is replaced in position and the upper body 1 is again attached to the lower body 2 and locked thereto by means of the bayonet joint; the electric conductor 10 is then plugged into a source of supply of electric current; when the electric current is switched on it flows through the water, which is, of course, a conductor, from one heating electrode 6 to the other so heating the water by electrolytic action in known manner, as the water in the water container 2 boils it is forced upwardly by the pressure of steam generated in the container 2 through the ground coffee in the coffee container 3 and the infused beverage is forced through the strainer 4 and up the percolator tube 1a into the upper body 1 from whence it may be poured by way of the spout 1a into a cup or other receptacle. When the depth of water in the container 2 falls and the electrodes 6 are partially uncovered the intensity of current (i.e. amperage) flowing through the water diminishes, until when

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the electrodes 6 are completely uncovered no current flows between the electrodes 6 thus the risk of damage is eliminated. The only precaution necessary is to ensure that the electric current is not on making the electrodes 6 alive when water is being poured into the container 2.

An advantage of the improved coffee percolator is its mobility enabling it to be freely moved within the range imposed by the electric flex whereby to facilitate the filling of cups with the infused coffee beverage.

#### WHAT I CLAIM IS:—

1. A portable coffee percolator including a lower part providing a water container forming an infusion chamber and furnished with an infusor element for receiving ground coffee and embodying a filter, and an upper part providing a container for receiving the infused coffee beverage, said container being formed with a centrally located percolator funnel, and also having a spout, a hinged lid and a handle, the two parts being removably attached together by a bayonet joint connection, the percolator being characterised in that the water container is furnished with a pair of electrodes connectable to a source of supply of electric current whereby with the container being filled with water and the electric current being switched on the electric current passes through the water which is, of course, a conductor, from one electrode to the other so heating the water by electrolytic action, and as the depth of water falls and the electrodes become partially uncovered the intensity of current i.e. amperage, flowing

through the water diminishes until when the electrodes are fully uncovered no current flows between the electrodes.

2. A portable coffee percolator as claimed in claim 1, characterised in that the two part body of the percolator is substantially of the shape of a jug, the upper part forming a container to receive infused coffee and the lower part forming a water container adapted to be used for infusion of the coffee being provided with a basal floor in which are secured two spaced apart heating electrodes connected to terminals arranged to receive an electric plug, at least the lower part of the body being made from an electrical insulating material.

3. A portable coffee percolator as claimed in claim 2 further characterised in that the lower part of the body is extended below the basal floor to provide an extension forming a housing for the terminals and electrical connections and being formed with a wall providing a localised recess adapted to receive and partially enclose a plug, the foot of the said extension being closed by a removable insulating cover whereby to protect the terminals and electrical connections.

4. A portable coffee percolator substantially as hereinbefore described with reference to and as illustrated in the accompanying drawing.

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3. A portable coffee percolator as claimed in claim 2 further characterised in that the lower part of the body is extended below the basal floor to provide an extension forming a housing for the terminals and electrical connections and being formed with a wall providing a localised recess adapted to receive and partially enshroud a plug, the foot of the said extension being closed by a removable insulating cover whereby to protect the terminals and electrical connections.

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1 SHEET

This drawing is a reproduction of the Original on a reduced scale.

